



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,396	11/02/2006	Ping Li	021238-832	1054
21839 7590 08/05/2011 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404				
EXAMINER NGUYEN, PHU HOANG				
ART UNIT 1747		PAPER NUMBER		
NOTIFICATION DATE 08/05/2011		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com  
offserv@bipc.com

### Office Action Summary

**Application No.**

10/560,396

**Applicant(s)**

LI ET AL.

**Examiner**

PHU NGUYEN

**Art Unit**

1747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 10, 17, 21, 31, 32, 35, 37, 39, 40, 47, 53, 62-64, 73, 74 and 79-81 is/are pending in the application.
- 4a) Of the above claim(s) 31, 32, 35, 37, 39, 40, 47, 53, 62-64, 73, 74 and 79-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 17 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The finality of Office Action filed 3/18/2011 has been withdrawn in view of the new grounds of rejection as set forth below.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smeed et al. (U.S Patent No. 4619278) in view of Li et al. (U.S Pub. No. 20030131859).

Regarding claims 1 and 21, Smeed discloses a smoking article comprising:

a tobacco rod having a wrapper formed around the tobacco rod, the wrapper including a patterned deposit on at least a portion of one surface of the wrapper (fig. 5 and column 1, lines 4-23);

wherein the patterned deposit comprises additive such as a burn control agent and wherein the patterned deposit includes a concentration gradient of the catalyst between a first portion having a low concentration feature and a second portion having a high concentration feature, wherein the first portion and the second portion respectively are linearly distal portion and a linearly proximate portion of the wrapper with respect to an end of the wrapper and first loading (linearly distal portion) of the agent is less than the second loading (linearly proximal portion) (see claim 9).

Smeed does not expressly disclose the burn control agent. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to look for a burn control agent and the art and found that iron oxide is a typical burn control agent as taught by Li. Li teaches that it's well known in the art to incorporate iron oxide as additives into tobacco articles (paragraph 6 of Li) and iron oxide can be used as a burn regulator (paragraph 7 of Li). Li also discloses iron oxide is capable of catalyzing, oxidizing and/or reducing the conversion of a constituent gas component in the mainstream and/or sidestream smoke of the smoking article (reducing the concentration of carbon monoxide) (paragraph 6 of Li). Therefore, it would have been obvious to one of ordinary skill in the art that the additive (iron oxide) as taught by Li is also capable of being a catalyst.

Regarding claim 2, Li discloses the catalyst comprises iron oxide (paragraphs 6-7 and 9-10 of Li).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smeed et al. (U.S Patent No. 4619278) in view of Li et al. (U.S Pub. No. 20030131859) as applied above for claim 1 and further in view of Smith (U.S Patent No. 3636027).

Regarding claim 10, The combination of Smeed and Li discloses iron oxide as the oxide catalyst but does not expressly disclose the oxide catalyst is supported. Smith discloses a catalyst system can be self supported or deposited on a support or carrier for dispersing the catalyst system to increase its effective surface. Calcium carbonate is one of the useful compounds as carrier (column 7, lines 49-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to support the catalyst on a compound such as calcium carbonate to increase its effective surface as taught by Smith.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smeed et al. (U.S Patent No. 4619278) as applied to claim 1 above and further in view of Snaidr (U.S Pub. No. 20030037792). Although the combination of Smeed and Li does not expressly disclose a smoking article with a second wrapper, it would have been obvious to one of ordinary skill in the art at the time the invention to was made to construct the article of Smeed with a double wrapper to effectively reduce the sidestream smoke as taught by Snaidr. Snaidr discloses the smoking article is typically having a double wrap arrangement with the smoke treatment composition to reduce the sidestream smoke (paragraphs 19 and 26).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-2, 10, 17 and 21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHU H. NGUYEN whose telephone number is (571)272-5931. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P.N 7/21/2011

/Richard Crispino/  
Supervisory Patent Examiner, Art Unit 1747